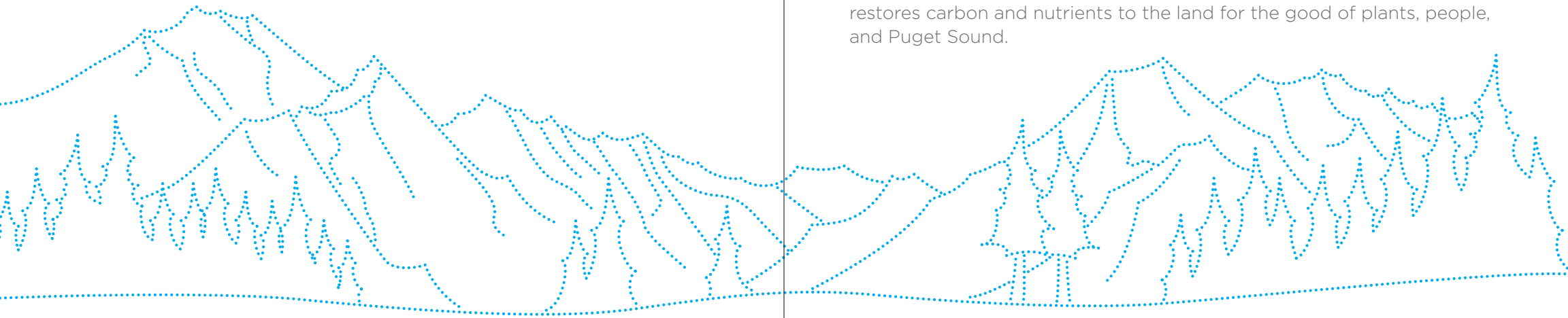


KING COUNTY BIOSOLIDS



loop

Turn your dirt around



LOOP TURNS YOUR DIRT AROUND

Loop is a natural soil amendment and endlessly renewable resource that restores carbon and nutrients to the land for the good of plants, people, and Puget Sound.

LOOP IS GOOD STUFF THAT BUILDS GOOD SOIL

King County WTD recycles wastewater solids into approximately 120,000 tons of Loop annually. Superior to conventional fertilizers, Loop replenishes the soil by returning a full suite of macro and micronutrients, while its proven ability to hold rainwater like a sponge reduces runoff and erosion. Research shows that Loop is safe and effective, and reduces greenhouse gas emissions into the atmosphere. As an ingredient in the commercial product GroCo, it has enriched Pacific Northwest landscapes since 1976.



LOOP IS AN ALMOST-MAGICAL PRODUCT

- **PRODUCING AND USING LOOP IS THE RIGHT THING TO DO. IT'S SAFE, HIGH-QUALITY, SUSTAINABLE, CLIMATE-FRIENDLY AND MAKES PLANTS THRIVE.**

Rich in nutrients and organic matter, Loop supports healthy soil microbial communities and improves the tilth, or physical attributes, of soil.

- **LOOP ENRICHES THE SOIL WITH ESSENTIAL NUTRIENTS THAT ARE SLOWLY RELEASED AS PLANTS NEED THEM.** Loop returns nutrients to our soils where plants can use them. Loop's nutrients include nitrogen, phosphorus and potassium, as well as all micronutrients essential for plant growth.

- **LOOP REDUCES EROSION AND HOLDS WATER.** Loop is rich in organic matter, which is the best thing you can add to soil. It improves soil structure and combats erosion by wind and rain. Loop acts like a sponge to help soil absorb and retain moisture for plants to use. This ability to retain water also decreases the amount of harmful stormwater runoff, thus protecting our rivers, lakes, streams, and Puget Sound.



- **LOOP STORES CARBON WHILE REDUCING OUR CARBON FOOTPRINT.** Unlike synthetic fertilizer, which requires a lot of energy to make, making Loop produces methane gas, which is captured and used as a renewable energy source. Also, using Loop helps to store carbon. University scientists have studied soils where Loop has been used and have found that it stores carbon in the soil.



RETURNING NUTRIENTS TO OUR LAND

LOOP IS THE MAGIC INGREDIENT IN GROCO™ COMPOST. Loop is mixed with sawdust from local lumber mills and then composted for over a year. The result is a fluffy, rich, dark compost that is clean, stable, and odor-free.

LOOP IS USED AS A FERTILIZER REPLACEMENT AND SOIL AMENDMENT ON FARMS AND FORESTS. Our agricultural customers in Douglas and Yakima counties know that Loop works. Side-by-side comparisons have repeatedly shown that yields are higher with Loop than synthetic fertilizer, thanks to slow-release nutrients and lots of organic matter.

TREES LOVE LOOP TOO. Wood yields increase and understory plants grow thick and lush, creating food and habitat for wildlife.



(LEFT) Tree rings from same forest showing accelerated growth after Loop application (left) and slower growth without Loop (right).
(OPPOSITE PAGE) Comparison of wheat grown in Douglas County on the same number of square inches with biosolids (left) and without (right).

LOOP IS MADE ACCORDING TO PRECISE STANDARDS

Loop is made according to precise EPA standards and is regularly tested for quality and safety. Monitoring and long-term research demonstrate that Loop is a safe and effective soil amendment. Unlike synthetic fertilizers, Loop contains all nutrients essential for plant life, not just a few of them.

TYPICAL NUTRIENT CONTENT FOR LOOP			
Available Nitrogen (NH4-N) 1.10%		Potassium 0.15%	
Slow-release Nitrogen (Organic N) 5.55%		Sulfur 1.00%	
Phosphorus 2.30%		Organic Matter 63.0%	

All values reported on a dry weight basis

Other nutrients found in Loop include calcium, magnesium, iron, manganese, copper, zinc, boron, and molybdenum.

Loop is tested for trace metals and pathogens to ensure safety for both the environment and human health. Small amounts of some metals like copper and zinc are needed for plant growth, while others are nontoxic to plants at low concentrations. Loop always tests well below the metals limits for EPA Exceptional Quality biosolids.

During the treatment and manufacturing of Loop 95-99 percent of the pathogens are destroyed. Any remaining pathogens are destroyed during composting, or when exposed to light, air, and soil at application sites. Public access and grazing are restricted for 30 days while this natural die-off takes place. Since composting destroys 100 percent of pathogens, no restrictions are needed when using GroCo compost.

Decades of university research and demonstration prove time and again that Loop is good stuff that builds good soil. Loop has been replenishing our gardens, forests, and farmland for nearly 40 years.



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